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(54) Title: HUMAN CHONDROITINASE GLYCOPROTEIN (CHASEGP), PROCESS FOR PREPARING THE SAME, AND PHARMACEUTICAL COMPOSITIONS COMPRISING THEREOF

(57) Abstract: The invention relates to the discovery of a novel Chondroitinase Glycoproteins (CHASEGP's), methods of manufacture, and potential uses in conditions where removal of chondroitin sulfates may be of therapeutic benefit. Chondroitinase Glycoproteins require both a substantial portion of the catalytic domain of the CHASEGP polypeptide and asparagine-linked glycosylation for optimal chondroitinase activity. The invention also includes carboxy-terminal deletion variants of CHASEGP that result in secreted variants of the protein to facilitate manufacture of a recombinant CHASEGP. Further described are suitable formulations of a substantially purified recombinant CHASEGP glycoprotein derived from a eukaryotic cell that generate the proper glycosylation required for its optimal activity. CHASEGP is useful for the degradation of glycosaminoglycans and chondroitin sulfate proteoglycans under clinical conditions where their removal is of therapeutic value.

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/40090

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12P21/06; C12N 9/00, 9/24, 1/20, 15/00; C07H 21/04  
 US CL : 435/69.1, 183, 200, 252.3, 320.1; 536/23.2, 23.4, 23.5; 424/94.1

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/69.1, 183, 200, 252.3, 320.1; 536/23.2, 23.4, 23.5; 424/94.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database GenBank, US National Library of Medicine, (Bethesda, MD, USA) No.Q9UL99, CSOKA AB et al., May 2000. polypeptide is 100% identical to SEQ ID NO:1.	1-11, 16, 23-56
X	Database GenBank, US National Library of Medicine, (Bethesda, MD, USA) No.Q9Y6T9, WILSON R et al., November 1999. Polypeptide is 99.5% identical to SEQ ID NO:1.	1-11, 16, 23-56
X	Database GenBank, US National Library of Medicine, (Bethesda, MD, USA) No.Q9D660, CARNINCI et al., June 2001. Polypeptide is 78.8% identical to SEQ ID NO:1.	1-21, 25
X	Database GenBank, US National Library of Medicine, (Bethesda, MD, USA) No.AF009010, CSOKA et al., October 1999. Polynucleotide is 100% identical to SEQ ID NO:3 and 100% identical to SEQ ID NO:4.	1-16, 23-56
X	Database GenBank, US National Library of Medicine, (Bethesda, MD, USA) No.AK014599, CARNINCI et al., November 1999. Polynucleotide is 100% identical to SEQ ID NO:4.	12-15, 23-56

☒ Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

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"O" document referring to an oral disclosure, use, exhibition or other means

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## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	Database GenBank, US National Library of Medicine, (Bethesda, MD, USA) No.Q9UL99, CSOKA et al., MAY 2000. Polypeptide is 100% identical to SEQ ID NO:6.	12-15, 23-56
X — Y	Database GenBank, US National Library of Medicine, (Bethesda, MD, USA) No.Q9Y6T9, WILSON R et al., November 1999. Polypeptide is 99.5% identical to SEQ ID NO:6.	12-15, 23-56

**INTERNATIONAL SEARCH REPORT**

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**Continuation of B. FIELDS SEARCHED Item 3:**

File BIOSIS, CAPLUS, EMBASE, MEDLINE, SCISEARCH, USPTO WEST, BIOTECHNO, BIOTECHABS, CANCERLIT, GENBANK